

# **BASIC** ***RIDER COURSE***<sup>SM</sup>

## **2013 RIDERCOACH GUIDE INSERT**

**This insert includes: Rider Handbook, DVD with slide deck, formal lesson plans.**

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The MSF Basic *RiderCourse*<sup>SM</sup> for motorcycles is based on years of scientific research and field experience. The current edition has been field tested and has proven to be successful in developing the entry-level skills for riding in traffic. Through its various iterations, more than five million riders have been trained since 1973.

The information contained in this publication is offered for the benefit of those who have an interest in riding motorcycles. In addition to the extensive research and field experience conducted by the MSF, the material has been supplemented with information from publications, interviews and observations of individuals and organizations familiar with the use of motorcycles and training. Because there are many differences in product design, riding styles, and federal, state and local laws, there may be organizations and individuals who hold differing opinions. Consult your local regulatory agencies for information concerning the operation of motorcycles in your area. Although the MSF will continue to research, field test and publish responsible viewpoints on the subject, it disclaims any and all liability for the views expressed herein.

Since 1973, the Motorcycle Safety Foundation has set internationally recognized standards that promote the safety of motorcyclists with rider education courses, operator licensing tests, and public information programs. The MSF works with the federal government, state agencies, the military, and others to offer training for all skill levels so riders can enjoy a lifetime of safe, responsible riding. The MSF is a not-for-profit organization sponsored by BMW, BRP, Ducati, Harley-Davidson, Honda, Kawasaki, KTM, Piaggio, Polaris Motorcycles, Suzuki, Triumph, and Yamaha. For *RiderCourse*<sup>SM</sup> locations, call 800.446.9227 or visit [msf-usa.org](http://msf-usa.org).

## EQUIPMENT AND MATERIALS

An electronic delivery mechanism is required for classroom facilitation. The electronic device should have a remote for advancing slides and include a laser pointer. (Note: a laser pointer may not show on a TV monitor.) A standard setup would include a computer or electronic device with remote control, projector and screen or television. If a television monitor is used instead of a projector and screen, it should be a large size to allow participants to see the details in many of the slides. If an older flat-screen television is used to display the slides, the television should be set up so the wording and images show properly. Note: some older Blu-ray DVD players may not be compatible with the DVD provided; be sure to check it out.

Classroom materials include, but are not limited to, the following:

1. Rider Handbook: all participants must have their own as a course takeaway
2. Roster
3. Schedule
4. Directions to the riding area
5. Registration form
6. Waiver and indemnification form
7. State driver's manual and/or motorcycle operator manual as a reference
8. Knowledge test materials
9. Completion cards
10. Pens/pencils
11. Props, as provided locally
12. Nametags and name tents, as provided locally

## INSTRUCTIONAL PLAN

A slide presentation is used for addressing Rider Handbook content. Nominal instructional time, including breaks, is five hours.

There are a total of 16 sections in the Rider Handbook, plus supplementary information. The content of these sections may be tailored per local/state policies, procedures, and circumstances.

The 10 activity sheets located in the back of the Rider Handbook, and these are not used for Level I instruction. These activity sheets are used once a site converts to the full BRC (updated) curriculum.

## FORMAL EVALUATION

All participants are required to pass a written knowledge test. The Level I Student Knowledge Test, which covers the entire Rider Handbook, is used. The test is a 25-item, closed book multiple-choice test. It is not a take-home test.

## CONDUCTING CLASSROOM LESSONS

### PREPARATION

1. Know the content well
2. Have the classroom and materials in order
3. Set up the chairs/tables to accommodate three groups so the display can be seen
4. Use name tags and name tents
5. Prioritize key points with a clear understanding of a primary message for the topic
6. Have a mental map of what you'll be doing
7. Anticipate what group members might say or ask
8. Make a checklist of action steps
9. Be prepared and organized; don't procrastinate
10. Visualize yourself in front of a group
11. Make use of a classroom board or flipchart with key points or lesson topical outline
12. Note housekeeping, facility requirements, creature comforts, etc. before the class begins

### PRESENTATION

1. Don't talk to a monitor, screen, board or flipchart; face the group
2. Stay alert and attentive without the distraction of an earpiece or cell phone
3. Pause after asking a question or making a key statement; wait at least three seconds
4. Not all questions need an answer
5. Move around the room
6. Use a remote control for the slides
7. Be sincere in your interest in safety and learning

## RIDER HANDBOOK CLASSROOM OBJECTIVES

Course participants will be able to:

### Welcome and Section 1. Course Introduction

1. Describe in what way motorcycling is serious fun.
2. Identify the need for physical and mental skills to ride safely.
3. Tell that the BRC is about the basics of riding.
4. Recognize that RiderCoaches help guide toward achieving course objectives.
5. Know upon successful completion that practice on a personal motorcycle is important.
6. List the requirements for successful completion.
7. Know that completing the BRC is not a guarantee of safety when riding.
8. State how personal responsibility is a key requirement for gaining value from the course.
9. State why a rider may be counseled out of the course.

### Section 2. Motorcycle Types

1. List the three basic types of motorcycles.
2. Name some general characteristics of the various styles of motorcycles.

### Section 3. Controls, Indicators and Equipment

1. List the six primary controls, their location and function.

2. Explain a shift pattern.
3. Describe the function of a fuel supply valve.
4. Explain when to use a choke control.
5. Know the location and function of various other common controls.
6. Distinguish between a convex mirror and regular mirror.

#### Section 4. About Basic Operation

1. Know the significance of FINE-C and what each letter represents.
2. Know that the clutch lever and stands can affect starting the engine.
3. Describe the friction zone and explain its significance.
4. Tell what to do with the clutch lever if control is lost.
5. Describe good riding posture.
6. Explain the significance of a wrist-flat position on the throttle.
7. List the four steps of basic turning and describe what occurs in each step.
8. Name the three-step strategy for cornering.
9. Describe turning posture for a slow, tight turn.
10. Tell why to square the bars when coming to a stop.
11. Tell why the front brake provides more stopping power than the rear brake.
12. State what could happen if a brake control is applied too hard too quickly.
13. State the purpose of changing gears.
14. Differentiate between an engine over-rev and an engine lug.
15. List the three-step process to shift to a higher gear.
16. List the three-step process to shift to a lower gear.
17. Describe what happens during engine braking.

#### Section 5. Preparing to Ride: The Four Preps

1. List the four areas for preparing to ride.
2. Provide the two primary characteristics for motorcycle fit.
3. Tell what each letter in TCLOCS represents.
4. State the value of routine maintenance.
5. State three primary reasons for using good personal protective gear.
6. Define ATGATT.
7. Name the primary injury that produces rider fatalities.
8. Describe how a helmet protects the brain.
9. List the four components of a helmet.
10. Describe how to choose a good helmet.
11. Distinguish between a three-quarter-face helmet and full-face helmet.
12. Name three designations that indicate a quality helmet.
13. Describe how to care for a helmet.
14. Name two ways to ensure eye and face protection.
15. State the value of using proper riding footwear, gloves, jackets, and pants.
16. List the six items of personal protective gear.
17. Tell what to look for in a good rain suit.

18. Explain how to dress for cold weather riding.
19. Define wind chill.
20. Explain how to prepare for riding in hot weather.
21. Tell why riding has the potential to cause permanent hearing damage.
22. State what it means to have a good mental attitude.

#### Section 6. Risk and Riding

1. State why a wise rider acknowledges the risks of riding.
2. Name the two areas in the roadway system where most crashes occur.
3. State the primary cause of motorcycle crashes.
4. Explain how removing just one factor may prevent a crash.
5. Provide some questions a rider should ask himself or herself to self-assess risk-taking tendencies.
6. Define the characteristics of a good rider.
7. Describe the three safety margins.
8. Explain risk offset and how it informs a rider.

#### Section 7. Basic Street Strategies

1. Tell why it is important to be in constant, full control of the motorcycle.
2. Describe how to choose a good lane to ride in.
3. Differentiate among the three possible positions within a lane.
4. Describe how to choose a good position within a lane.
5. List a few reasons to ride in any of the three lane positions.
6. State which lane position is the default, or start, position.
7. Tell what is meant by a bird's eye view.
8. Name a few ways to be visible (conspicuous) in traffic.
9. Define RiderRadar.
10. Using a clock face, state the location of most of the factors that produce risk.
11. List the three visual lead times and distances.
12. Tell how to determine a two-second following distance.
13. Tell how the four-second urgent time and distance relates to stopping distance.
14. State the value of having a 12-second anticipation time and distance.
15. Name the three components of total stopping distance.
16. Distinguish between braking distance and total stopping distance.
17. State the approximate total stopping distance at 60 miles-per-hour.
18. Tell why safe riding, after learning the basics, is more a skill of the eyes and mind than of the hands and feet.
19. Describe how to scan for factors in traffic.
20. Explain why having an escape path is a key part of a Search pattern.
21. List the four Search categories.
22. Describe what it means to Evaluate as part of a safe riding strategy.
23. List the three action steps of Execute.
24. Name some conditions when a good choice would be to not ride, or if riding to find a safe spot to wait for better conditions.

25. Name the three areas of a possible escape path.
26. Tell how many escape paths a rider should have open.

#### Section 8. Strategies for Common Riding Situations

1. Describe how to have 360-degree awareness when approaching an intersection.
2. Tell what may cause blind spots around intersections.
3. Describe how to Open Up the View at an intersection.
4. Describe how to wait at a red light.
5. Explain how to deal with traffic-actuated signals.
6. Describe the procedure to turn from a stop at an intersection.
7. List some factors that produce risk when riding between intersections.
8. Diagram a motorcycle rider's blind spot and a car driver's blind spot.
9. Define the No-Zone.
10. List the steps to make a proper lane change.
11. Explain how to merge onto a freeway.
12. List the three general curve types.
13. List the three parts of a curve.
14. List the three possible lane positions.
15. State the significance of having a good entry speed for a curve.
16. List a few Search tips for curves.
17. List a few Evaluate tips for curves.
18. List a few Execute tips for curves.
19. Explain the value of having an initial lane position strategy of middle-middle-middle for negotiating a curve.
20. Name three tips for having control in limited-space maneuvers.
21. Describe a method to start out from a stop on an upgrade.
22. Describe how to deal with obstacles that cannot be avoided.
23. Provide some tips when parking a motorcycle.
24. Define road furniture and its significance in having a search-and-evaluate plan.
25. Describe the procedures for passing a vehicle on a two-lane roadway where there is oncoming traffic.
26. Tell how to handle a tailgater.
27. Provide some tips for riding at night or in low-light conditions.
28. Describe what is meant by overriding the headlight.
29. Explain the meaning of Ride Your Own Ride.
30. Describe how to handle peer pressure to ride with little or no good risk offset.
31. Name some tips to follow when riding in a group.

#### Section 9. Basics for Emergencies

1. Name and describe the operation of three common motorcycle braking systems.
2. Describe how to stop quickly (like an emergency stop) in a straight line.
3. Describe how to stop quickly (like an emergency stop) in a curve.
4. Tell why braking pressure may need to be different in a curve than for a straight path.
5. Tell what type of brake lever pressure could produce a front tire skid.

6. Describe what to do if the front tire begins to skid.
7. Tell what type of brake pedal pressure could produce a rear tire skid.
8. Describe what to do if the rear tire begins to skid, both when the rear tire is and is not in alignment with the front tire.
9. Tell what action should be avoided when making an aggressive swerve.
10. Tell what complicates swerving in a curve versus swerving in a straight path.
11. Describe what a rider should consider when making a brake-first or swerve-first decision.

#### Section 10. Special Riding Situations

1. Name some road surfaces that could cause a problem for a motorcyclist and how to safely negotiate them.
2. Tell why the first few minutes of rain tends to make the road surface slippery.
3. Tell what problems are caused by roadway crack sealant and tar strips.
4. State how an off-camber surface affects rider action.
5. Explain the effects of carrying a passenger or cargo.
6. Provide some tips for when carrying a passenger.
7. State some rules for a passenger to follow.
8. Provide some tips for carrying extra weight, like cargo.
9. Define touring.
10. Name two recommendations to prepare for touring.
11. State a problem that is caused by a strong, steady wind.
12. Provide the procedure to respond to a dog that could chase a motorcycle.
13. State the procedure to handle a sudden loss of tire pressure.
14. Tell how a rider should respond if the throttle sticks.
15. Tell how a rider should respond if the clutch cable breaks.
16. Describe how to handle a motorcycle wobble or weave.
17. Tell how a rider should handle a drivetrain problem.
18. Describe engine seizure and what should a rider do if it occurs.

#### Section 11. Rider Impairments

1. State why the use of alcohol affects rider strategy.
2. Define a standard alcoholic beverage (drink).
3. Define the meaning of BAC.
4. List the three factors that determine BAC.
5. State why separating drinking from riding shows good rider character.
6. State that drugs can have stimulating or depressing effects.
7. State the effect of combining alcohol with drugs.
8. Provide some tips for intervening to prevent a rider from riding impaired.
9. Tell in what way distraction can increase risk.
10. Provide a remedy to avoid riding while fatigued.
11. Tell how emotions can affect riding decisions.
12. State how to keep aging from affecting riding safely.
13. Describe Riding at the Limit as it relates to risk offset.

Section 12. Select Topics

1. Provide state motorcycling licensing requirements.
2. Name the state-required personal protective gear.
3. Name the state-required motorcycle equipment requirements.
4. Provide the state motorcycle insurance requirements.
5. List some of the consequences of impaired riding.

Section 13. Key Safety Concepts

1. State how good judgment is developed.
2. Define rider character.
3. Provide a definition of select terms and concepts from the course.

Section 14. Knowledge Test

1. Show success on the Level I student knowledge test by scoring 80 percent correct or better.
2. After the test, provide the correct response for any test items missed.

Section 15. Next Steps

1. Name some ways a rider can keep riding strategies and skills fresh.
2. Provide personal action steps for improvement after BRC completion.
3. Name the formal rider education and training courses that are available locally.

Section 16. Range Preparation

1. Explain the importance of following range safety rules.
2. State some of the range safety rules.
3. Respond correctly to select RiderCoach signals.
4. Tell how the range exercises are structured.

## USING THE SLIDE PRESENTATION

Slides are used to address content in the Rider Handbook, using either a computer or DVD player. A chunking method is used, which means content is divided into manageable segments using a three-step process of setup, activity, and capstone (referred to as the *Easy 3*). *Setup* is a simple statement about a general objective or what the content in a section addresses. *Activity* refers to making small-group assignments and facilitating the achievement of objectives (a RiderCoach provided activity may replace one or more chunks). Activities should go beyond simply *read-and-report* or *just answer the study question*; this can be accomplished by using creative, learner-centered activities or extending a discussion to make the content relevant and meaningful. *Capstone* is a simple summary statement to address the content related to the activity.

After the opening few slides, a slide is used to set up the content by making assignments for each group. This slide includes the group number, page or pages assigned, topics as appropriate, and references the related study questions located in the back of the Rider Handbook. Slides shown when a group is reporting include Rider Handbook illustrations and additional images for possible highlighting and discussion.

Policies and procedures should be established for specific jurisdictional use, which should address course preliminary activities that include requirements per local policies and procedures, ensure each participant has a personal Rider Handbook to keep, and include localized administrative and introductory activities as appropriate. (Note: The activity sheets in the back of the Rider Handbook are not used unless the program provides Level II formal classroom content from the latest BRC.)

## CLASSROOM LESSON PLANS

Slide Deck B is used to address Level I classroom content. It is one of five slide decks provided for the BRC, and the remaining slide decks will be provided when you are enrolled in a Transitional RiderCoach Preparation (T-RCP) course. The first slide in the deck simply provides the title and explanation of this particular slide deck. Slides 2-4 are used at the beginning of the classroom session to introduce the course and explain how the lessons will work.

Addressing the content of Rider Handbook sections begins with Slide 5. Generally, the slides for each segment (chunk) are in sets of four, where the first slide gives the assignments, the second slide is shown when the first group is reporting, the third slide is shown when the second group is reporting, and the fourth slide is shown when the third is reporting. Illustrations in the Rider Handbook and the supplemental images shown on-screen can be used during group interactions, by you or by the course participants. There are some exceptions to this 4-slide sequence and they are:

In Section 3 (Controls, Indicators and Equipment), there is a slide provided to have the whole class complete the Control Quiz on page 7 of the Rider Handbook

In Section 6 (Risk and Riding), there is a slide provided to have each class member figure out their own risk offset using the steps listed on page 19 in the Rider Handbook

In Section 8 (Strategies for Common Situations), a slide is provided to have all class members discuss important procedures for group riding

In Section 9 (Basics for Emergencies), there is a slide provided to all class members discuss how they would make an emergency stop in a curve

Sections 12-16 have only one slide, as content for each topic is provided per local policies and procedures

Below are the segments on Slide Deck B. Assign the material as shown on the first slide of each segment, and allow time for the groups to prepare before starting a discussion. Circulate around the class to help individuals and groups as needed, and have a way for each group to acknowledge readiness. Show the appropriate slide as each group reports or leads a discussion. Provide a capstone at the end of each segment. Remember that breaks are to be provided hourly or more often as needed.

Welcome and Sections 1 and 2. Course Introduction and Motorcycle Types

- Group 1: Page iv, Welcome (1-3)
- Group 2: Page 1, Course Requirements; Risk and Responsibilities (4-5)
- Group 3: Pages 2-3, Introduction and Motorcycle Types (6-7)

Section 3. Controls, Indicators and Equipment

- Group 1: Page 4, Introduction and Primary Controls (8-13)
- Group 2: Page 5, Other Controls (14-17)
- Group 3: Pages 5-6, Indicators and Equipment (18-20)
- Upon completion of above, have each person complete the Controls Quiz on page 7 and have each group compare answers. Ensure correctness.

Section 4. About Basic Operation

- Group 1: Page 8, Introduction through Riding Posture (22-28)
- Group 2: Page 9, Basic Turning (29-32)
- Group 3: Pages 10-11, Braking to a Stop through Shifting (33-42)

Section 5. Preparing to Ride: The Four Preps

- Group 1: Pages 12-13, Introduction through Head and Brain Protection (43-48)
- Group 2: Pages 14-15, Helmet Basics through Gloves (49-58)
- Group 3: Pages 15-17, Jackets, Pants, Riding Suits through Mental Attitude (59-67)

Section 6. Risk and Riding

- Group 1: Page 18, Introduction through Risk Awareness (68-70)
- Group 2: Pages 18-19, Risk Acceptance through Risk Management (71-74)
- Group 3: Page 19, Self-Awareness, 1st 3 paragraphs (75)
- Upon completion of above, have all participants figure out their risk offset (p.19)

Section 7. Basic Street Strategies

- Group 1: Pages 20-21, Introduction through Being Visible (76-79)
- Group 2: Pages 22-23, An Active Strategy through Total Stopping Distance (80-84)
- Group 3: Pages 24-25, Mental Processing through Escape Paths (85-91)

Section 8. Strategies for Common Riding Situations

- Group 1: Pages 26-28, Introduction through Freeway Merging and Exiting (92-103)
- Group 2: Pages 28-30, Curves through Limited-Space Maneuvers (104-110)
- Group 3: Pages 31-33, Starting on a Hill through Night Riding (111-119)
- All: Page 33, Group Riding (120-124)

Section 9. Basics for Emergencies

- Group 1: Page 34, Introduction through Emergency Stop in a Curve (125-129)
- RiderCoach Note: After Group 1 reports, there is a slide with a question for all groups
- Group 2: Pages 34-35, Front Tire Skid through Rear Tire Skid (130-131)
- Group 3: Page 35, Swerving through The Brake or Swerve Decision (132-134)

Section 10. Special Riding Situations

- Group 1: Page 36, Introduction through Road Surfaces (135-139)
- Group 2: Pages 37, Carrying Passengers or Cargo (140-146)
- Group 3: Pages 38-39, Touring through Engine Seizure (147-154)

Section 11. Rider Impairments

- Group 1: Page 40, Introduction through Alcohol (155-161)
- Group 2: Pages 40-41, Drugs through Intervention (162-165)
- Group 3: Pages 41-42, Other Factors Affecting Safety through Riding at the Limit (166-173)

Section 12. Select Topics (page 43)

- RiderCoach to provide information

Section 13. Key Safety Concepts (page 44)

- RiderCoach to provide information

Section 14. Knowledge Test (page 45)

- Per local policies and procedures, complete optional knowledge test using Level I Student Knowledge Test
  - o RiderCoach Note: This page also features Motorcycle Crash Scenarios, which is an optional activity that could be used anytime during the course. To use it, assign each group one of the scenarios and have them determine the cause of the crash; lead a discussion toward the primary cause being an interaction or combination of factors.

Section 15. Next Steps (pages 46-47)

- RiderCoach to provide information per local availability of offerings

Section 16. Range Preparation (page 48-49)

- RiderCoach to review (An option is to use Slide Deck E.)

Optional Activities

- Review Glossary items by assigning each group one page (pages 50-52)
- Note the study questions (pages 53-58)
- Note the activity sheets (used for Level II classroom) (pages 59-69), which includes Ten Things All Car & Truck Drivers Should Know About Motorcycles (page 59)
- Point out the information about Quick Tips: Pretend You Are Invisible (page 70)
- Note the Student Satisfaction Survey (pages 71-72)
- Point out Quick Tips for group riding and T-CLOCS (pages 73-74)
- Note the MSF Lifelong Learning Resources (pages 75-77)

  
**Slide Deck B**  
**Level I Formal Classroom**  
  
**Review and Report**  
  
(when NOT using BRC LII classroom)  
  
(study question numbers in parentheses)  
  
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**Welcome to the**  
**MSF Basic *RiderCourse***  
  
1. Join one of three groups at a table  
  
2. Introduce yourself to others at your table  
(Name, hobbies, motorcycling experience (if any), reason for course)  
  
3. Complete paperwork if not already done  
  
4. We will start the class in a few minutes  
  
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**Introductions**   
  
1. Course participants  

- Name
- Where from
- Motorcycling experience (operator or passenger)
- Primary reason for course

  
2. RiderCoach(es) and others present  
  
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## Rider Handbook



Each group will:

### 1. Review content in Rider Handbook

- Pages numbers and topics are provided
- Related study question numbers are in parentheses

### 2. Report meaningful information

- Use images from the Rider Handbook and what is shown on the slide

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Welcome and Sections 1 & 2.

Welcome, Course Introduction, and Motorcycle Types



## Meaningful information?

Group 1: Page iv, Welcome (1-3)

Group 2: Page 1, Course Requirements; Risk and Responsibilities (4-5)

Group 3: Pages 2-3, Motorcycle Types (6-7)

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Group 1: Page iv, Welcome (1-3)



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Group 2: Page 1, Course Requirements;  
Risk and Responsibilities (4-5)



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Group 3: Pages 2-3, Introduction and  
Motorcycle Types (6-7)



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Section 3.  
Controls, Indicators and Equipment



**Meaningful information?**

Group 1: Page 4, Introduction and Primary Controls (8-13)

Group 2: Page 5, Other Controls (14-17)

Group 3: Pages 5-6, Indicators and Equipment (18-20)

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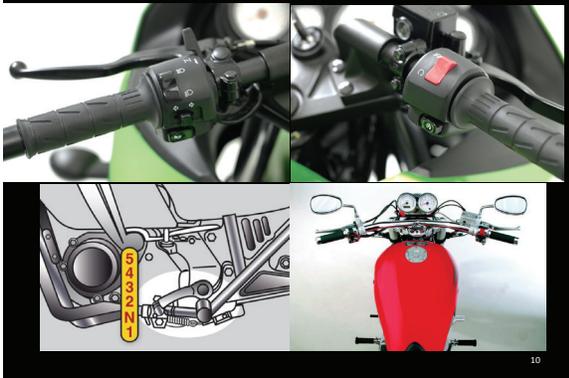
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Group 1: Page 4, Introduction and Primary Controls (8-13)



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Group 2: Page 5, Other Controls (14-17)



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Group 3: Pages 5-6, Indicators and Equipment (18-20)



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Section 3.  
Controls, Indicators and Equipment



Everyone complete Controls Quiz on page 7 and compare answers with those in your group.

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Section 4.  
About Basic Operation



Meaningful information?

Group 1: Page 8, Introduction through Riding Posture (22-28)

Group 2: Page 9, Basic Turning (29-32)

Group 3: Pages 10-11, Braking to a Stop through Shifting (33-42)

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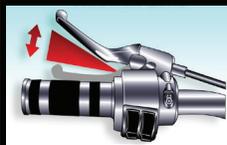
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Group 1: Page 8, Introduction through Riding Posture (22-28)



Starting Engine: FINE-C

Fuel Valve

Ignition

Neutral

Engine Cut-off Switch

Choke/Clutch

Stopping Engine

Thumb

Key

Valve



15

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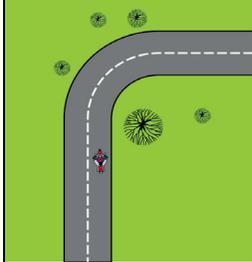
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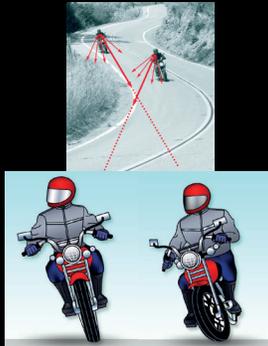
Group 2: Page 9, Basic Turning (29-32)



Slow, Look, Press, Roll



Search-Setup-Smooth



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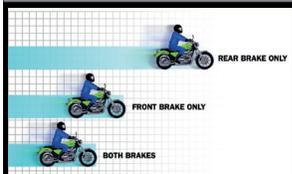
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Group 3: Pages 10-11, Braking to a Stop through Shifting (33-42)



Normal Braking



Heavy Braking

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Section 5. Preparing to Ride: The Four Preps



Meaningful information?

Group 1: Pages 12-13, Introduction through Head and Brain Protection (43-48)

Group 2: Pages 14-15, Helmet Basics through Gloves (49-58)

Group 3: Pages 15-17, Jackets, Pants, Riding Suits through Mental Attitude (59-67)

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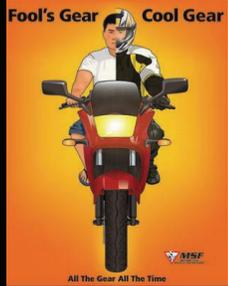
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Group 1: Pages 12-13, Introduction through Head and Brain Protection (43-48)



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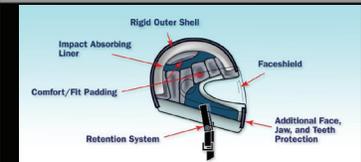
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Group 2: Pages 14-15, Helmet Basics through Gloves (49-58)



**BASIC HELMET CONSTRUCTION**



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Group 3: Pages 15-17, Jackets, Pants, Riding Suits through Mental Attitude (59-67)



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Section 6.  
Risk and Riding



**Meaningful information?**

Group 1: Page 18, Introduction through Risk Awareness (68-70)

Group 2: Pages 18-19, Risk Acceptance through Risk Management (71-74)

Group 3: Page 19, Self-Awareness, 1<sup>st</sup> 3 paragraphs (75)

22

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Group 1: Page 18, Introduction through Risk Awareness (68-70)



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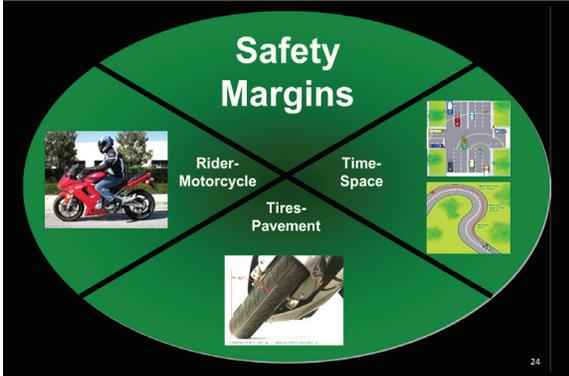
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Group 2: Pages 18-19, Risk Acceptance through Risk Management (71-74)



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Group 3: Page 19, Self-Awareness,  
1<sup>st</sup> 3 paragraphs (75)



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Section 6.  
Risk and Riding



Determine Your Risk Offset (bottom of page 19)

Risk

Skill



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Section 7.  
Basic Street Strategies



Meaningful information?

Group 1: Pages 20-21, Introduction through Being Visible (76-79)

Group 2: Pages 22-23, An Active Strategy through Total Stopping Distance  
(80-84)

Group 3: Pages 24-25, Mental Processing through Escape Paths (85-91)

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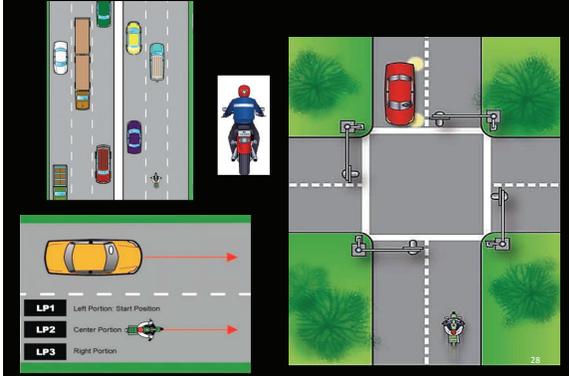
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Group 1: Pages 20-21, Introduction through Being Visible (76-79)




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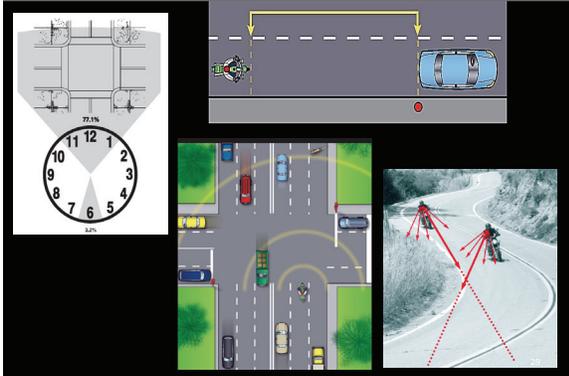
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Group 2: Pages 22-23, An Active Strategy through Total Stopping Distance (80-84)




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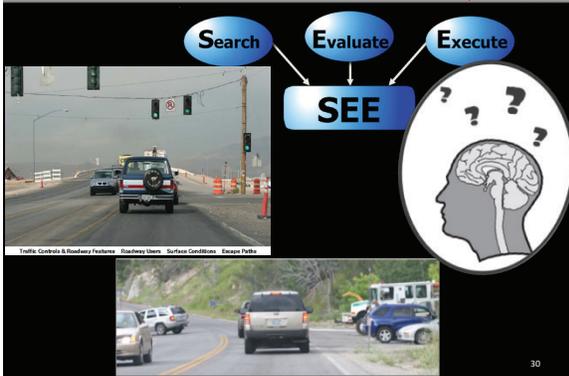
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Group 3: Pages 24-25, Mental Processing through Escape Paths (85-91)




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Section 8.  
Strategies for Common Situations



**Meaningful information?**

Group 1: Pages 26-28, Introduction through Freeway Merging and Exiting (92-103)

Group 2: Pages 28-30, Curves through Limited-Space Maneuvers (104-110)

Group 3: Pages 31-33, Starting on a Hill through Night Riding (111-119)

All groups: Page 33, Group Riding (120-124)

31

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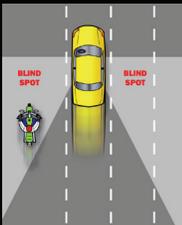
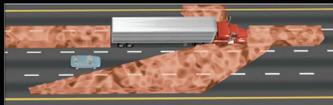
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Group 1: Pages 26-28; Introduction through  
Freeway Merging & Exiting (92-103)



What is the danger?

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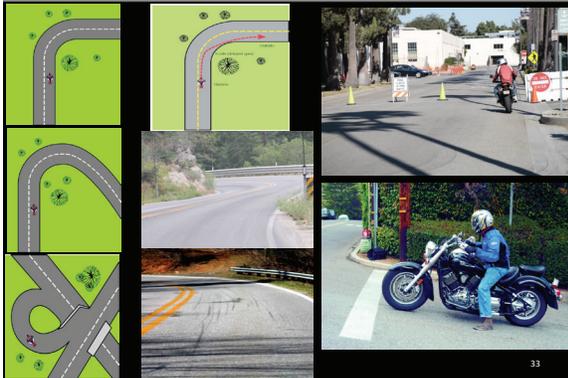
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Group 2: Pages 28-30, Curves through  
Limited-Space Maneuvers (104-110)



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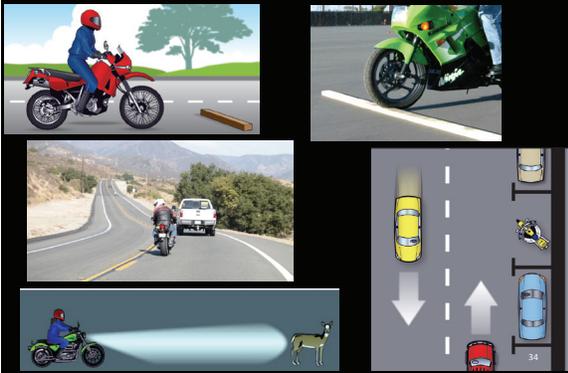
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Group 3: Pages 31-33, Starting on a Hill through Night Riding (111-119)



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All Groups: Page 33, Group Riding (120-124)



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Section 9.  
Basics for Emergencies



**Meaningful information?**

Group 1: Page 34, Introduction through Emergency Stop in a Curve (125-129)

Group 2: Pages 34-35, Front Tire Skid through Rear Tire Skid (130-131)

Group 3: Page 35, Swerving through The Brake or Swerve Decision (132-134)

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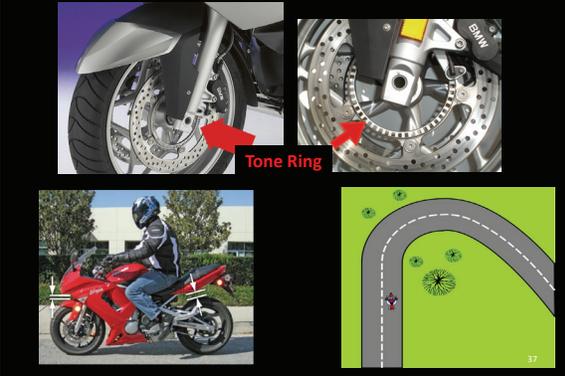
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Group 1: Page 34, Introduction through  
Emergency Stop in a Curve (125-129)



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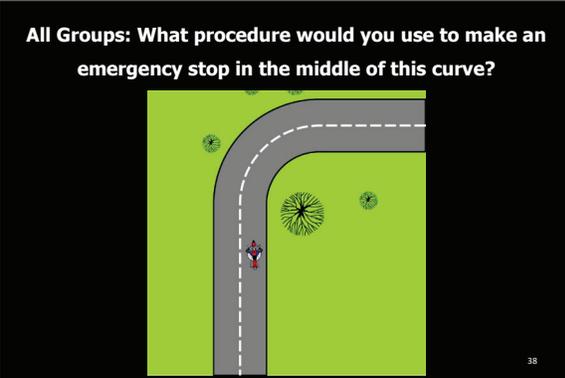
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All Groups: What procedure would you use to make an  
emergency stop in the middle of this curve?



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Group 2: Pages 34-35, Front Tire Skid through  
Rear Tire Skid (130-131)



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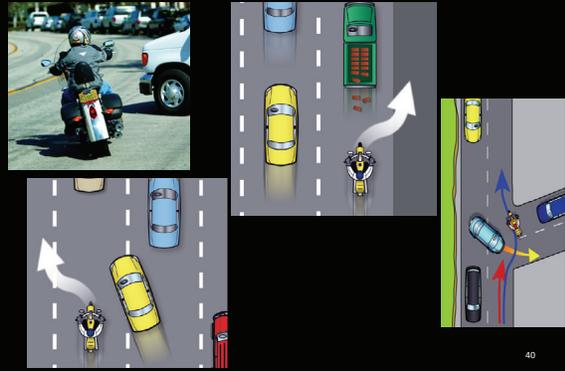
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**Group 3: Page 35, Swerving through The Brake or Swerve Decision (132-134)** 



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**Section 10. Special Riding Situations** 

**Meaningful information?**

Group 1: Page 36, Introduction through Road Surfaces (135-139)  
 Group 2: Page 37, Carrying Passengers or Cargo (140-146)  
 Group 3: Pages 38-39, Touring through Engine Seizure (147-154)

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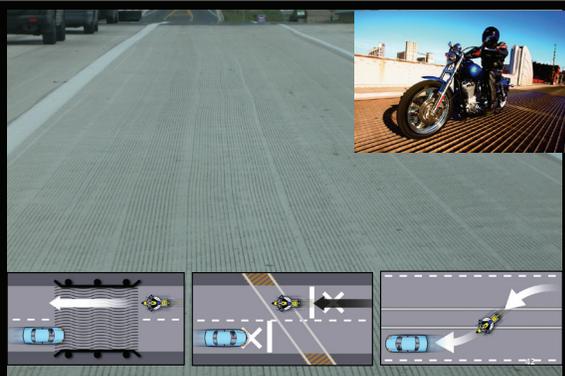
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**Group 1: Page 36, Introduction through Road Surfaces (135-139)** 




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Group 2: Page 37, Carrying Passengers or Cargo (140-146)



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Group 3: Pages 38-39, Touring through Engine Seizure (147-154)



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Section 11. Rider Impairments



**Meaningful information?**

Group 1: Page 40, Introduction through Alcohol (155-161)

Group 2: Pages 40-41, Drugs through Intervention (162-165)

Group 3: Pages 41-42, Other Factors Affecting Safety through Riding at the Limit (166-173)

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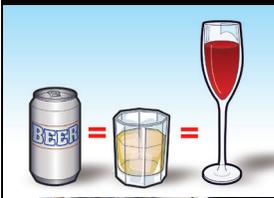
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Group 1: Page 40, Introduction through Alcohol (155-161)



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Group 2: Pages 40-41, Drugs through Intervention (162-165)



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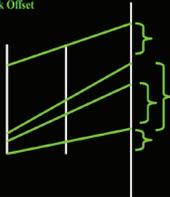
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Group 3: Pages 41-42, Other Factors Affecting Safety through Riding at the Limit (166-173)



Good Risk Offset



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Section 12.  
Select Topics (page 43)



**RiderCoach to provide topics.**

You don't want to meet Vince.



If you ride under the influence of alcohol, you'll have to deal with the police, your insurance company, and Vince. He, you know, Vince is this guy standing over at the table. If the insurance people make you nervous, just call 911 and see the doc.



49

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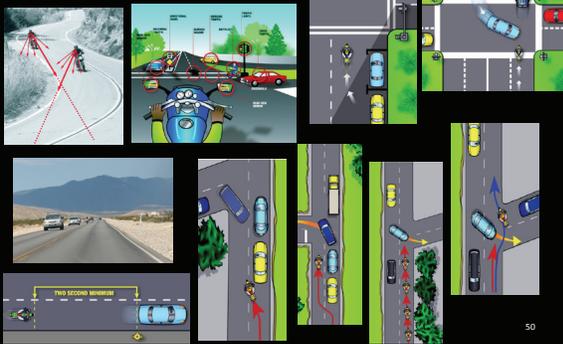
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Section 13.  
Key Safety Concepts (page 44)



**RiderCoach to provide topics.**



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Section 14.  
Knowledge Test (page 45)



**Follow RiderCoach instructions.**

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Section 15.  
Next Steps (pages 46-47)



**RiderCoach to provide topics.**



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Section 16.  
Range Preparation (pages 48-49)



**Follow RiderCoach instructions.**

**Page 48-49 topics:**

- 1. Range Safety Rules**
- 2. RiderCoach Signals**
- 3. How the Range Exercises Work**

53

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# BRC RIDER HANDBOOK STUDY QUESTION ANSWERS

## WELCOME AND SECTION 1. COURSE INTRODUCTION

1. Why is motorcycling considered serious fun?  
*Serious because there is risk involved; fun because riding a motorcycling is fun (iv)*
2. Learning to ride and ride well requires what physical traits?  
*Fitness, strength, coordination (iv)*
3. What do RiderCoaches do?  
*Guide students, answer questions, observe progress (iv)*
4. What are the four requirements for successful course completion?  
*1-complete all course assignments; 2-attend all sessions; 3-pass a knowledge test; 4-pass an on-cycle test (1)*
5. When does a RiderCoach not permit further riding in the course?  
*If a rider has a lot of difficulty or becomes a danger to themselves or others (1)*

## SECTION 2. MOTORCYCLE TYPES

6. What are the three basic motorcycle types?  
*1-street, 2-dual-purpose, and 3-off-highway (2)*
7. Pick the motorcycle type you will likely ride and tell why.  
*Personal responses will vary (2-3)*

## SECTION 3. CONTROLS, INDICATORS AND EQUIPMENT

8. List the six primary controls.  
*1-handlebars, 2-throttle, 3-clutch lever, 4-gearshift lever, 5-front brake lever, 6-rear brake pedal (4)*
9. How do you operate the motorcycle's throttle?  
*Rotate to control engine speed; to increase engine speed, twist it toward you (roll on); to decrease engine speed, twist it away from you (roll off) (4)*
10. What does the clutch lever do?  
*Connects power from the engine to the rear wheel (4)*
11. How is the gearshift lever operated?  
*Lift up firmly and release to go to a higher gear; press down firmly and release to go to a lower gear (4)*
12. What is a shift pattern?  
*How many gears are available below and above neutral (4)*
13. How are the two brake controls operated?  
*Front brake lever is squeezed in to operate; the amount of squeeze must be adjusted for effective braking.  
Rear brake pedal is pressed down to operate it (4)*
14. What are possible positions on the fuel valve?  
*On, Reserve, and Prime or Off (5)*
15. What are possible positions on the ignition switch?  
*On, Off, and Lock, and possibly Park (5)*
16. What is the choke control used for?  
*Provide an enriched fuel mixture to help start the engine; raises idle to permit the engine to warm quickly (5)*
17. Why does a motorcycle have an engine cut-off switch?  
*You can shut off the engine without removing your hand from the handgrip (5)*

18. What are some common indicators that display information?  
*Speedometer, odometer, tachometer, indicator lights (5)*
19. What is important to know about a convex mirror?  
*They provide a wider view but make objects look farther away. They also reduce the size of blind spot areas but do not eliminate them (6)*
20. What is the difference between a side stand and center stand?  
*Center stand keeps the motorcycle more upright (6)*
21. Complete the Controls Quiz on page 7 and check your answers.  
*1-speedometer/odometer; 2-tachometer; 3-engine cut-off switch; 4-engine start button; 5-mirror; 6-front brake lever; 7-throttle; 8-rear brake pedal; 9-footrest; 10-shift lever; 11-horn button; 12-turn signal switch; 13-clutch lever; 14-high/low beam headlight switch*

#### **SECTION 4. ABOUT BASIC OPERATION**

22. List the five steps of the engine pre-start routine.  
*1-fuel, 2-ignition, 3-neutral, 4-engine cut-off switch, and 5-choke/clutch (FINE-C) (8)*
23. What are the three steps to follow when shutting off the engine?  
*1-move engine cut-off switch to Off, 2-turn ignition switch off, and 3-turn fuel supply valve Off if it has that position (thumb, key, valve) (8)*
24. What is the friction zone?  
*A small area in the travel of the clutch lever that controls the connection between the engine and the rear wheel (8)*
25. What does squeezing the clutch lever do?  
*Fully squeezing in the clutch lever removes power from the rear wheel (8)*
26. What must you do if you start to lose control of the motorcycle?  
*Squeeze the clutch lever in fully and use the brakes as needed (8)*
27. What is the position of the right wrist for good riding posture?  
*Flat (8)*
28. What are the other elements of proper riding posture?  
*Back straight, head & eyes up, feet on footrests near the controls, knees & elbows in, arms relaxed and bent, fingers around the throttle, cover the clutch lever (8)*
29. How do you initiate motorcycle lean at speeds higher than walking speed?  
*Countersteer – press left, lean left; press right, lean right (9)*
30. What are the four action steps for making a basic turn?  
*1-slow, 2-look, 3-press, and 4-roll (9)*
31. What is the three-step strategy for curves and what does each step mean?  
*1-Search means to look for key information while approaching and going through a curve; 2-Setup is to adjust speed and lane position as necessary before entering; 3-Smooth means to operate the controls so there are no jerky movements (9)*
32. In what type of turn does counterweighting help?  
*Slow, tight turns like a U-turn in a parking lot (9)*
33. What gear should you be in when coming to a stop and why?  
*First, so you can easily start out again (10)*

34. What is the benefit of squaring the handlebars when coming to a stop?  
*The motorcycle is easier to hold up (10)*
35. Why does the front brake have more stopping power than the rear brake?  
*Forward weight shift pushes the front tire down into the road surface (10)*
36. How does the motorcycle's weight shift during braking?  
*Forward (10)*
37. How do you stop in a curve?  
*Gradually apply both brakes as you straighten up the motorcycle. The motorcycle should be straight up and the handlebars should be square before you come to a complete stop. Be sure to downshift and keep the clutch lever squeezed in (10)*
38. Why do you change gears?  
*To match engine speed to road speed (11)*
39. List the three-step process to shift to a higher gear.  
*1-roll off the throttle as you squeeze in the clutch lever, 2-lift the gearshift lever and release it, and 3-ease out the clutch lever and roll on the throttle (11)*
40. List the three-step process to shift to a lower gear.  
*1-roll off the throttle as you squeeze in the clutch lever, 2-press the gearshift lever and release it, and 3-ease out the clutch lever and roll on the throttle (11)*
41. What is engine braking?  
*Shifting to a lower gear and easing out the throttle (11)*
42. What is the position of the clutch lever when making a stop?  
*Fully squeezed (11)*

#### **SECTION 5. PREPARING TO RIDE: THE FOUR PREPS**

43. List the four preparations.  
*1-your motorcycle is a good fit; 2-your motorcycle is inspected before each ride; 3-you are using proper protective gear, and 4-you have a good mental attitude with safety as your priority (12)*
44. How should your motorcycle fit you?  
*Seat height should be low enough so you can reach the ground and support the motorcycle; motorcycle size should be right for your strength and skill level so you can handle it well; adjust the controls or replace the seat to fit you better (12)*
45. What is T-CLOCS and what does each letter stand for?  
*A pre-ride inspection routine. T-tires and wheels; C-controls; L-lights and mirrors; O-oil and other fluids; C-chassis; S-stands (12)*
46. List the three primary purposes of riding gear.  
*1-helps keep you comfortable and focused; 2-helps keep your body protected, and 3-may help you be much more visible in traffic (13)*
47. What does ATGATT mean?  
*All The Gear, All The Time (13)*
48. What type of injury accounts for the majority of motorcycle-related deaths?  
*Head injuries. (13)*
49. What are the four basic parts of a helmet?

*1-outer shell keeps objects from reaching the head and absorbs impact; 2-impact-absorbing liner absorbs shock and spreads impact forces throughout the helmet; 3-comfort padding helps with comfort and fit; 4-retention system fastens the helmet on your head (14)*

50. What is the difference between a full-face-coverage helmet and three-quarter-coverage helmet?

*Full-face helmet offers more protection for the face and chin (14)*

51. What stickers are likely to indicate a well-made helmet?

*DOT and possibly ECE or Snell (14)*

52. How should a helmet fit?

*Snugly (14)*

53. What are some tips to care for a helmet?

*Don't use harsh chemicals; leave a damp towel on the helmet for a few minutes then wipe off bugs; wash removable pads as needed; use products to eliminate bacteria and mildew; avoid dropping your helmet; put it bottom side down; and do not drill holes, modify the retention system, paint it, or attach items to the exterior (14-15)*

54. Are ordinary glasses or sunglasses alone sufficient eye protection?

*No (they may not seal out wind and dust) (15)*

55. What types of eye and/or face protection can a rider choose?

*Face shields and goggles (15)*

56. Name four considerations about eye and face protection.

*1-flip up shields should be down when you ride; 2-face shields and goggles should be free of scratches (impact resistant, clean); 3-clear shields or goggles should be used at night; 4-goggles are worn over the helmet (15)*

57. What is the value of appropriate footwear?

*Helps protect from riding hazards; provide good grip on pavement and keep feet on footrests; provide protection against foot and ankle injuries (15)*

58. What features of a full-fingered glove help a rider?

*Protect hands from weather, improve grip, protect in a fall and from flying debris; outside seams; curved fingers; may have armor for greater protection; insulated gloves help in cold weather; gauntlets keep cold air from going up sleeves (15)*

59. What is the value of motorcycle-specific clothing?

*Designed to fit while in a riding position; flaps help seal out the wind; zippers for ventilation; extra padding (armor) provides more protection (15-16)*

60. How can motorcycle riding gear make you more visible?

*Wear bright colors during the day; use reflective vest at night (16)*

61. What are some features your gear should have if you are riding in rain or cold weather?

*Keep you dry and warm; bright colors; elastic for snug and secure fit; high collar; zips up; wide flaps across openings; waterproof gloves and boot covers; dress in layers with a windproof outer layer (16)*

62. Define hypothermia.

*Lower than normal body temperature (16)*

63. What is wind chill?

*The chilling (cooling) effect of wind on exposed skin (16)*

64. What is the value of dressing in layers?

*You can adjust to conditions (16)*

65. What should you be cautious of in hot weather?

*Dehydration and heat exhaustion (16)*

66. In what way can riding a motorcycle affect hearing and what can be done?

*You are exposed to wind noise and engine noise that may cause hearing damage; use ear plugs/protection (17)*

67. What does it mean to have a good mental attitude?

*Safety is your #1 priority (17)*

## **SECTION 6. RISK AND RIDING**

68. Where do most crashes occur?

*Curves and intersections (18)*

69. Name three reasons why riding a motorcycle involves more risk than driving a car or truck.

*1-you are less stable; 2-you are more vulnerable; 3-you are less visible (18)*

70. What is the primary cause of motorcycle-related crashes?

*Usually there are many factors that interact (combine) (18)*

71. What questions help you think about the risks of riding?

*How good am I as a car driver? Do I have many near-crashes when I drive? Do I have to brake hard very often when I drive? Am I easily distracted when I drive? Do I have points on my driver's license?(18)*

72. After learning to ride, why is safety more about mental skills than physical skills?

*Safe riding is more a skill of the eyes and mind than of the hands and feet (19)*

73. List the three key safety margins.

*1-having riding skill and motorcycle maneuverability beyond what is actually needed; 2-having traction beyond what is actually needed, and 3-having time and space beyond what is actually needed (19)*

74. What are five characteristics of a rider who manages risk properly?

*Has knowledge, skills, attitude, values, and habits to be a safe and responsible rider (19)*

75. What does it mean to have good risk offset?

*Skill exceeds risks you take (19)*

## **SECTION 7. BASIC STREET STRATEGIES**

76. What does it mean to have a good lane choice?

*You do not have to change lanes a lot and can see ahead while being visible to others (20)*

77. What is the purpose of using three different positions within a lane?

*To avoid road hazards, to avoid bad road conditions, and to see and be seen (20)*

78. What is the start position?

*Left third of the lane (20)*

79. Name three smart ways to be more visible (conspicuous) to others in traffic.

*Lane position, clothing, headlight, turn signals, brake light, horn, add-ons (21)*

80. What are the 3 visual lead times of RiderRadar?

*2-second following time and distance; 4-second urgent time and distance; 12-second anticipation time and distance (22)*

81. Why is the 2-second following distance considered minimum?

*Conditions must be ideal and you have to be paying close attention (22)*

82. How are the 4-second urgent time/distance and total stopping distance related?  
*With good braking skills, you can generally stop within the distance you would have traveled in 4-5 seconds (22)*
83. Name the 3 parts of total stopping distance.  
*1-perception, 2-reaction, and 3-braking (23)*
84. How can you reduce total stopping distance (TSD)?  
*By improving skills for each part (23)*
85. What does it mean to Search?  
*To scan far and near and side-to-side, including the instrument display, and mirror and blind spot checks (24)*
86. What are the four search categories?  
*1-traffic controls and roadway design features (lights, signs, medians, etc.); 2-roadway users; 3-road and surface conditions; 4-escape paths, in front and to each side (24)*
87. What does it mean to Evaluate?  
*To think about what could happen (24)*
88. What are the three action steps of Execute?  
*1-adjusting speed, 2-adjusting position, and 3-communicating intentions (24)*
89. What are some environmental conditions that may be hazardous and what can you do?  
*Storms, heavy rain, lightning, flash flooding, heavy fog, dust storms, etc. Stop in a safe place to wait it out (24)*
90. What is an escape path?  
*Path that is open and allows you to avoid a collision (25)*
91. What is the danger with target fixation?  
*You may crash into the target you are staring at (25)*

## **SECTION 8. STRATEGIES FOR COMMON RIDING SITUATIONS**

92. Where is the greatest potential for conflict between a rider and other traffic?  
*Intersections (26)*
93. What is 360° awareness?  
*Being aware of traffic all around you (ahead, behind, left and right) (26)*
94. What is Presentation?  
*To use a lane position where others are best able to see you (26)*
95. What does it mean to Open Up the View?  
*To use a position to see and be seen in both directions at an intersection without interfering with cross traffic or pedestrians (26)*
96. Why is turning from a stop an important skill?  
*You want to stay in your lane and avoid running into other traffic when you turn at intersections (26)*
97. What are some tips for turning from a stop?  
*Select a position that allows you to see traffic; turn the handlebars and lean the motorcycle slightly; position at a slight angle; manage the clutch lever and throttle (26)*
98. What are some hazards between intersections?  
*Vehicles pulling out of parking spaces or backing out of driveways; people or animals that could dart out in front of you; pedestrians, bicycles, and other vehicles that could affect escape paths (26)*
99. In what ways do cars and motorcycles have blind spots?  
*There are areas you can't see beside or behind you that you cannot see in mirrors (27)*

100. What is the No-Zone?  
*Areas around a truck to avoid because the driver cannot see you (27)*
101. What is the proper technique for lane changes?  
*Check the space you want to use is clear (mirror check); head check; signal in advance; cancel signal when in new lane (28)*
102. What are some things to be aware of when merging?  
*Traffic behind; escape path; use caution when merge area is used by traffic exiting; use good lane position to see and be seen (28)*
103. When merging onto a freeway, why match speed to traffic flow?  
*So you can more easily fit into an open space in traffic (28)*
104. What are the three curve types?  
*1-constant radius, 2-increasing radius, and 3-decreasing radius (28)*
105. What are the three curve parts?  
*1-entry, 2-apex, and 3-exit (28)*
106. What are the three lane positions used for curves?  
*1-outside, 2-middle, and 3-inside (28)*
107. What are some factors to search for when approaching a curve?  
*Roadway warning signs; what is beyond the curve; oncoming traffic; road and surface conditions (29)*
108. What should be assumed about a curve if you cannot see to its end?  
*The curve radius decreases (29)*
109. What is the advantage of using a delayed apex in a curve?  
*Increased margin of safety in blind or decreasing radius curves (29)*
110. What are some tips for making a low-speed U-turn?  
*Use sharp handlebar turn; use friction zone and throttle in combination with, or separate from, the rear brake to control speed; use a counterweight method; turn your head to get a good sight picture of where you want to go; as needed, touch a foot to the ground; power walk or stop and back up (30)*
111. What makes starting out on a hill (upgrade) more difficult?  
*The motorcycle wants to roll backwards (31)*
112. Why rise off the seat when crossing an obstacle?  
*To use your legs as shock absorbers (31)*
113. How is the throttle used when crossing an obstacle?  
*Just before contact, blip the throttle; upon contact, abruptly roll off the throttle (31)*
114. Why park with the front wheel facing out of a parking space?  
*Allows you to pull out more easily with a better view (31)*
115. What are some tips for keeping your motorcycle secure while it is parked?  
*Turn handlebars left to the full lock position; lock the forks and take the key; use a quality lock and chain and secure it through the frame; consider adding security alarm; use side stand pad; leave it in 1st gear; park in a secure area with lots of lighting; use a non-branded cover (31)*
116. What is a proper technique for passing and how are lane positions used?  
*Keep a good following distance and move to the left third of the lane; Have a safe passing gap ahead; Check your mirrors and blind spot (with a head check) and turn on your signal; Change lanes and accelerate; Cancel your signal; Select a lane position that gives you space from the vehicle you are passing; When past the*

vehicle, check your mirror and blind spot (with a head check), signal, and return to your lane; Cancel your signal. (32)

117. What is a good way to respond to a tailgating driver?

*Increase your distance from vehicles ahead (32)*

118. List a few tips for riding at night or in limited visibility conditions.

*Wear bright, reflective materials; use your high beam when you can; use the lights of other vehicles to help you see what is ahead; watch for tail lights that bounce; flash your brake light when slowing and when waiting at intersections; add lighting to your motorcycle; be sure eye protection is free of scratches and smudges and is clear (32)*

119. What does it mean to override the headlight?

*Your total stopping distance exceeds the distance your light beam shows (33)*

120. Why should you have good basic skills before riding in a group?

*There is more to think about than when riding alone (33)*

121. What is the benefit of knowing group riding signals?

*Can communicate with others in the group without stopping or compromising safety margins (33)*

122. When would you use staggered, side-by-side, or single-file riding formations?

*Ride staggered unless there is a need for single-file; avoid side-by-side; use single-file in curves, when there is poor visibility, if there are poor road surfaces, when entering or leaving roadways, or in other situations when an increased space cushion or maneuvering room is needed (33)*

123. What are some things to avoid when riding with others?

*Do not just do what riders ahead of you do; avoid group/peer pressure to ride beyond your skill or comfort level; avoid side-by-side riding; avoid engine braking; avoid target fixation (33)*

124. What are some personal considerations when riding in a group?

*Ride your own ride; avoid group pressure; keep attention on personal safety margins (33)*

## **SECTION 9. BASICS FOR EMERGENCIES**

125. How will you find out your motorcycle's type of braking system?

*Check the motorcycle owner's manual (34)*

126. What is the best way to achieve the shortest braking distance in a straight line?

*Apply maximum brake pressure to the front and rear brakes simultaneously without skidding either wheel (34)*

127. What is threshold braking?

*The ability to use the brakes fully without producing a skid (34)*

128. What complicates an emergency stop in a curve?

*Some traction is used for cornering (34)*

129. What are two methods of braking in a curve and when might you use each?

*1-straighten up first and make a quick stop in a straight line – used if road and traffic conditions permit;  
2-apply brake pressure while the motorcycle is leaned; as lean angle decreases, increase brake pressure – used when you cannot straighten, then brake (34)*

130. What should you do if the front tire skids because of too much brake pressure?

*Release the front brake lever to get the wheel rolling again (34)*

131. What should you do if the rear tire skids from too much brake pressure?

*Keep pressure on the rear brake pedal so the wheel continues to skid; if the rear wheel is nearly in line with the front wheel, you can release the rear brake pedal and then reapply it as needed (35)*

132. Why is it a good idea to avoid using the brakes (or rolling off the throttle) during a swerve?

*Any braking, even engine braking, may cause the tires to lose traction (35)*

133. What is your body position during a swerve?

*Independent of the motorcycle lean; torso upright, knees against the tank, feet on the footrests (35)*

134. How do you know whether to brake first or swerve first for an emergency?

*By using Search and Evaluate skills to use your escape options (35)*

## **SECTION 10. SPECIAL RIDING SITUATIONS**

135. Why is a surface most slippery as it begins to rain?

*Oil and dirt mix with the water (36)*

136. What is hydroplaning?

*Loss of traction due to water build-up under the tires (36)*

137. List three road-surface conditions that could affect traction.

*Rain-slick surface; worn pavement; loose surfaces and debris; crack sealant and tar strips; ice or snow patches and mud, moss, and algae; crowned and off-camber roads; rain grooves and grated bridge decks; and bumps, cracks, and railroad tracks (36)*

138. How can you adjust for the effects of surface hazards and/or reduced traction?

*Have a mental strategy as well as physical skills; reduce speed; minimize lean; use good lane position; give yourself time and space to adjust your path; adjust lane position; keep steering relaxed and avoid quick actions; keep speed under control (36)*

139. How can a crowned road affect riding?

*Ground clearance might be less than on a flat road (36)*

140. Why is it a good idea to gain experience before carrying a passenger or heavy cargo?

*Carrying a passenger or cargo affects the way your motorcycle handles (37)*

141. How does carrying a passenger or cargo affect motorcycle operation?

*Starting from a stop is more difficult; takes longer to get up to speed; more time is required for passing; more brake pressure will be needed for stopping, and suspension and tire pressures should be adjusted for the added weight per the owner's manual (37)*

142. What should happen as a passenger mounts and dismounts?

*Rider should keep both feet on the ground and the front brake lever applied (37)*

143. What are some tips for your passenger while riding?

*Hold waist or hips or passenger hand-holds; keep feet on footrests at all times, including when stopped; keep hands and feet away from hot or moving parts; look over the rider's shoulder in the direction of a turn or curve; avoid leaning too much or turning around; when crossing an obstacle, rise slightly off the seat (37)*

144. What can be used to fasten cargo?

*Web straps, bungee cord, cargo net (37)*

145. Where can you find your motorcycle's load limit?

*Owner's manual (37)*

146. What are some tips for carrying cargo?

*Keep low & close to center; keep items balanced from side to side; do not overload saddlebags or tank bag;*

*do not strap items to the handlebars, front forks, or front fender; do not block lights or moving parts; keep items away from mufflers; be sure the cargo is secure (37)*

147. Why should new riders limit long-distance riding until they gain experience?

*Long distances are different than commuting or short-distance rides; proper planning is a must (38)*

148. What are some special considerations for touring or riding long distances?

*Potential weather conditions; lack of cell phone coverage; emergency services may be some distance away (38)*

149. What should you carry with you while touring or riding long distances?

*Proper clothing, tools, food & fluids (38)*

150. What can you do to avoid fatigue and maintain health when touring?

*Make plenty of stops (38)*

151. Where might you encounter wind, wind gusts, or turbulent air conditions?

*Open areas or mountains, around large vehicles, when passing or being passed (38)*

152. How should you adjust for windy conditions?

*Adjust handgrip pressure as needed; be prepared (38)*

153. What is a good strategy to get by a dog that might chase you?

*Slow, downshift, then accelerate past the dog (38)*

154. What are some maintenance issues that could lead to an emergency?

*Tire failure, Stuck throttle, Clutch cable failure, Weave, Wobble, Drivetrain problems, Engine seizure (38-39)*

## **SECTION 11. RIDER IMPAIRMENTS**

155. Why is there increased crash risk associated with riding under the influence of alcohol or drugs?

*Alcohol and other drugs affect mental and physical skills needed for riding a motorcycle (40)*

156. What are the first abilities affected by alcohol?

*Judgment and vision (40)*

157. What other abilities are affected by alcohol and drugs?

*Ability to search for hazards (perception), evaluate factors (thinking), execute physical actions (coordination and reaction time) (40)*

158. How much beverage alcohol equals one drink?

*A 12-ounce beer, a mixed drink with 1.5oz of distilled liquor, or a 5-ounce glass of wine (40)*

159. How fast is alcohol eliminated from the bloodstream?

*Adult male – almost one drink per hour; female – three-fourths that rate (40)*

160. How can drinking alcohol and riding a motorcycle both be enjoyed?

*Separate drinking from riding (40)*

161. Why should you avoid riding with passengers or others who are impaired?

*Can cause a crash (40)*

162. What are some drugs that affect the ability to ride safely?

*Over-the-counter, prescription, illegal (40)*

163. How long will it take for the effects of drugs to wear off?

*Difficult to know; may happen suddenly (40)*

164. What happens if alcohol and other drugs are combined?

*Effects are compounded (40)*

165. What is the best way to approach intervention, and what are some other intervention methods?  
*Enlist others to help is best; also – call for cab/other transportation, slow pace of drinking, delay departure, provide alcohol-free drinks and food, keep the motorcycle parked, hide keys (41)*
166. What besides alcohol and drugs can affect riding safely?  
*Distraction, fatigue, emotions, aging, and riding at the limit (41-42)*
167. What are some factors that contribute to distraction and/or inattention?  
*Cell phones, mobile devices, eating, talking to passengers, medication (41)*
168. What contributes to fatigue or drowsiness, and what affects does fatigue have on riding?  
*Poor sleep; hard day at work. Senses are not as sharp; not be as likely to see or recognize potential hazards or situations; decision-making is slowed; physical actions not as quick or accurate; need more space for SEE and larger safety margins (41)*
169. What effect can emotions have on your riding?  
*Makes safe riding more difficult; increases risk if keeping you from using a safety strategy (41)*
170. What problems may be caused by over- or under-confidence?  
*Overconfidence may lead to aggressive riding & could put yourself in situations that require more skill or more performance than your bike can provide. Under-confidence can delay decisions (41)*
171. How can rider performance be affected by aging or health problems?  
*Vision, reaction time, skill, and perception can be affected; may have difficulty riding the way you used to (41-42)*
172. What does Riding at a Limit mean?  
*Staying near the very limits of crashing (aggressive riding, stunting) (42)*
173. What is rider character?  
*Choosing safe and responsible actions instead of risky moves (42)*

**SECTIONS 12-15: NO QUESTIONS FROM THESE SECTIONS.**

**SECTION 16. RANGE PREPARATION**

174. List the personal riding gear needed for the range.  
*Helmet meeting DOT standards, eye protection, long sleeves, full-fingered gloves, long pants, and sturdy boots or shoes that cover the ankles (48)*
175. What will happen at the end of each exercise and why?  
*You may be asked questions like: What went well and why? What do you need to improve upon? These questions help you understand the value of the skill and develop the habit of thinking and reflecting about your riding. Future success requires self-assessment (49)*

## LEVEL I STUDENT KNOWLEDGE TEST

Directions: Place the letter of the best answer in the proper space on the answer sheet.

- 1) Street motorcycles are designed:
  - A. With higher ground clearance than dual-purpose motorcycles
  - B. For use on public highways
  - C. To be used in recreational trail riding
  - D. To easily be converted for closed course competition
  
- 2) The motorcycle tachometer:
  - A. Indicates road speed
  - B. May be equipped with a resettable trip meter
  - C. Shows engine revolutions per minute
  - D. Shows miles ridden
  
- 3) A characteristic of a convex mirror is that:
  - A. It creates glare at night
  - B. Rider blind spot area is reduced
  - C. It will not fog
  - D. It works only at night
  
- 4) The Setup part of Search-Setup-Smooth for negotiating curves means:
  - A. Choosing a good entry speed and lane position
  - B. Flashing the brake light if anyone is following
  - C. Adjusting the motorcycle suspension to its softest setting
  - D. Adjusting upper body position toward the outside of the curve
  
- 5) To develop good habits when braking, a rider should:
  - A. Use the rear brake first, then the front brake
  - B. Use both brakes at the same time
  - C. Put both feet on the ground simultaneously for balance
  - D. Shift to neutral and stop with the clutch released
  
- 6) A helmet that has had an impact:
  - A. Is not damaged if it shows no outer signs of cracking
  - B. Must have the inner liner replaced
  - C. Should be submitted to DOT for testing before re-use
  - D. Should be inspected and probably replaced

- 7) Motorcyclist protective clothing is designed:
- A. With flaps and fasteners to keep out the wind
  - B. To fit loosely
  - C. With flared legs to fit over riding boots
  - D. With shorter sleeves for ease of movement
- 8) Crashes happen most often:
- A. At night
  - B. On weekends in rush hour traffic
  - C. On sparsely populated country roads
  - D. In curves and at intersections
- 9) Having a space cushion enables you to:
- A. Improve risk-taking tendencies
  - B. Respond to situations ahead of time
  - C. Predict crash situations
  - D. Keep track of your tires' air pressure
- 10) Risk offset is defined as the difference between:
- A. Riding slowly and riding fast
  - B. Your risk taking and allowing others to control risk
  - C. The risks you take and the skills you possess
  - D. Your speed and the speed of others
- 11) Presentation, as applied to lane positioning means:
- A. Selecting a lane position so others can see you best
  - B. Using turn indicators and hand signals when changing lanes
  - C. Riding in the center of the lane so drivers on both sides of you can see you
  - D. Applying your brakes from time to time while riding so others are aware of your presence
- 12) A lead time of 4 seconds is urgent because it:
- A. Enables you to make turns at higher speeds when following others
  - B. Is the greatest distance the eyes can clearly see ahead in traffic
  - C. Provides the best distance to see changing traffic light changes
  - D. Allows you enough time to swerve or brake for hazards
- 13) To avoid getting trapped:
- A. Practice on your one, best escape maneuver
  - B. Keep more than one escape path open to you
  - C. Make an escape decision and stick to it
  - D. Don't focus on too many options

- 14) To reduce the danger of blind spots to the sides and behind you:
- A. Readjust your mirrors whenever you ride in heavy traffic
  - B. Ride in the right lane and adjust your mirrors with a clear view of the lane to your left
  - C. Make a head check prior to changing lanes
  - D. Maintain the same speed and ride directly beside another vehicle
- 15) When riding through curves:
- A. Countersteer and brake while in the curve
  - B. Search for hazards by keeping your eyes on the road directly ahead of you
  - C. Remain visible to drivers in opposing lanes by staying in the left portion of the lane
  - D. Select a lane position based on traffic, road conditions, and type of curve
- 16) When starting out on an uphill grade:
- A. Apply the rear brake to prevent rolling backwards and ease out the clutch while applying the throttle
  - B. Release both brakes and quickly release the clutch while applying the throttle
  - C. Hold the motorcycle with your feet
  - D. Shut off the engine and with the clutch released, press the starter button until the engine starts
- 17) When overtaking and passing another vehicle:
- A. Flash your headlights to let the driver know your intentions
  - B. Only pass one vehicle at a time
  - C. You can pass on either the right or the left
  - D. You are not allowed to exceed the speed limit by more than 10 mph
- 18) When braking in a straight line during an emergency stop:
- A. Keep your body centered and look ahead
  - B. Downshift and release the clutch lever quickly, then brake
  - C. Use only the rear brake
  - D. Slide forward slightly to facilitate weight transfer
- 19) An effective strategy for making an emergency stop in a curve is to:
- A. Lightly apply the front brake then apply the rear brake fully
  - B. Steer toward the right shoulder of the road, then apply both brakes
  - C. Straighten the motorcycle, then brake
  - D. Apply the front brake only and increase lean angle
- 20) Making a quick stop in a curve requires:
- A. Grabbing the front brake pedal and stomping the rear brake lever
  - B. Progressively more brake pressure as lean angle is reduced
  - C. Threshold braking to maintain constant brake pressure at each wheel
  - D. Increasing available traction by shifting rider weight rearward

- 21) When crossing a section of road covered in ice or snow:
- A. Slow down, and if possible, squeeze the clutch lever, and coast
  - B. Accelerate to avoid sliding
  - C. Downshift, hold the handlebars tightly, then accelerate quickly
  - D. Quickly apply both front and rear brakes
- 22) When carrying a passenger, the rider should:
- A. Move further forward in the seat
  - B. Suggest the passenger not wear a face shield, so verbal commands can be easily heard
  - C. Continually converse with the passenger regarding intentions
  - D. Adjust the suspension and tire pressure for the additional weight
- 23) Riding in steady, high winds from the side will require you to:
- A. Adjust your input on the handgrips
  - B. Put more weight on the footrests
  - C. Stay in the right portion of the lane
  - D. Stay close to the vehicle ahead of you to reduce the effects of the wind
- 24) Depressant drugs such as alcohol:
- A. Must be digested before affecting riding performance
  - B. Slow down the body's functions
  - C. Enter the bloodstream slowly
  - D. Reach the brain slowly
- 25) Over-the-counter drugs:
- A. Affect riding performance less than alcohol
  - B. Are not dangerous for riders if approved by a physician
  - C. Are safe for riders when taken at recommended dosage
  - D. Can have depressing or stimulating effects

## KNOWLEDGE TEST ANSWER SHEET

Name \_\_\_\_\_

Date \_\_\_\_\_

Directions: Place the letter of the best answer in the space provided.

1. \_\_\_\_\_

14. \_\_\_\_\_

2. \_\_\_\_\_

15. \_\_\_\_\_

3. \_\_\_\_\_

16. \_\_\_\_\_

4. \_\_\_\_\_

17. \_\_\_\_\_

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18. \_\_\_\_\_

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23. \_\_\_\_\_

11. \_\_\_\_\_

24. \_\_\_\_\_

12. \_\_\_\_\_

25. \_\_\_\_\_

13. \_\_\_\_\_

## KNOWLEDGE TEST ANSWER KEY

- |       |       |
|-------|-------|
| 1. B  | 14. C |
| 2. C  | 15. D |
| 3. B  | 16. A |
| 4. A  | 17. B |
| 5. B  | 18. A |
| 6. D  | 19. C |
| 7. A  | 20. B |
| 8. D  | 21. A |
| 9. B  | 22. D |
| 10. C | 23. A |
| 11. A | 24. B |
| 12. D | 25. D |
| 13. B |       |